Shropshire Entomology

A bi-annual newsletter focusing on the study of insects and other invertebrates in Shropshire (Vice County 40)

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Welcome

Welcome to the 13th edition of *Shropshire Entomology*.

This edition includes some County Recorder reports for 2016 and the usual mix of other articles. Please do continue to submit your notes and articles. We are particularly keen to receive notes of new species for Shropshire. The deadline for the next edition, to be published November/December is 31 October 2017 at vc40insects@talktalk.net

Nigel Jones and Gordon Leel

Shropshire Entomology is published online as a freely available pdf from http://www.shropshireecology.co.uk/entomology.html

Past newsletters are still available for download as PDFs from www.invertebrate-challenge.org.uk/newsletters-and-resources.aspx

Submission guidelines for articles

Please wherever possible state authors for key species mentioned in the article eg. *Phaeostigma notata* (Fabricius, 1781)

Photographs should ideally be above 200kb in size. We may crop photos to fit. Please provide the photographer's name or the source of the photograph.

Please send text in a word file. Only use capital letters for site or people's names. Lower case letters should be used for vernacular or common species names except for those named after someone e.g.; Fallen's leatherbug.

Many thanks, the Editors

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Shropshire Entomology Day – Sunday 10 December 2017 at Preston Montford Field Centre.

New and little recorded aquatic bugs in Shropshire: an update

Frances J Riding

Frances J Riding franrid@hotmail.com

Shropshire has 45 recorded species of aquatic and semi-aquatic bugs as of this year. Several of these species have records numbered in single figures and/or single sites. One such is *Sigara scotti* (Douglas & Scott, 1868), a Corixid, found in two pools on the Long Mynd in 2012 - hopefully still there. Other Corixids with limited records are *S. venusta* (Douglas &Scott, 1868) and *S. nigrolineata* (Fieber, 1848), both found again on the Long Mynd or in the Clun area.

Two water skaters (Gerridae) that are both listed as Nationally Scarce (Cook, 2015) are *Aquarius najas* (De Geer, 1773) and *Aquarius paludum* (Fabricius, 1794). Both these species have been mentioned in previous publications but since the single observation of *A. najas* in the River Dee (Shropshire) in 2012 this insect has become locally common in the north of the county throughout the Shropshire canal system, River Perry, River Tanat (Shropshire section) and Rea Brook.

Aquarius paludum (Photo 1) is a lot more interesting. Since finding it in Betton Pool in August 2013 I have also recorded it in Bomere, Berrington Pool and at Walford. This year I found a raft of them on Wall Pool at Dudmaston, a long distance away and in far from pristine conditions. Shropshire is now beginning to look like a stronghold for this insect which has not been recorded outside of south-east England before and is still regarded as a southern species (Cook, 2015).

Photo 1. *Aquarius paludum* (Fabricius, 1794).

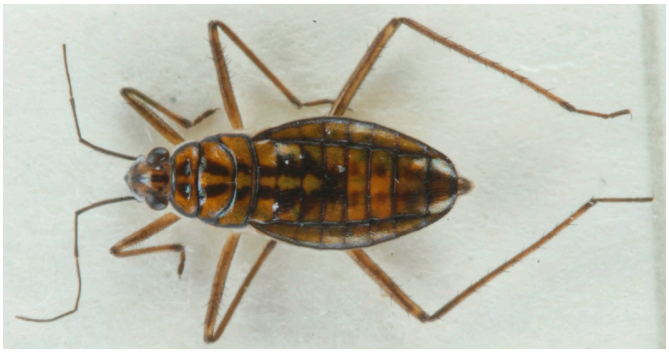

Photo 2. *Mesovelia furcata* (Mulsant & Rey, 1852).

Mesovelia furcata (pondweed bug) (photo 2), first recorded from Walford in 2014, has only got two more sites, Berrington Pool and Big Pool at Dudmaston Hall. This is probably an under recorded species though there are virtually no records north and west of Birmingham (NBN, 2016). Huxley (2003) regarded it as a southern species with a slow northern movement.

Two new species have been added to the Shropshire list this year, as well as one species which has not been recorded for 30 years. These three species are three of the smallest species of Corixids in Britain. The first of the new species is *Cymatia coleoptrata*) (Photo 3), about 3.5 mm long and easy to identify having cylindrical tarsi. They were found in high numbers in Brim Pool at Dudmaston.

The other new species is *Micronecta scholtzi*, a still water Corixid, 2-2.5 mm long (Photo 4). This insect was found in vegetation in shallow water in Big Pool, Dudmaston Hall. It is not an uncommon creature and lives in shoals in vegetation. The 'rediscovered' species was *Micronecta poweri*, an inhabitant of running water (Photo 5). In Shropshire it has two records from the late 1980's being found in the Rivers Clun and Teme, south Shropshire (NBN, 2016). This year I recorded it in

Photo 3. *Cymatia coleoptrata* (Fabricius, 1776).

Photo 4. *Micronecta scholtzi* (Fieber, 1847).

Photo 5. *Micronecta poweri* (Douglas & Scott, 1852).

the River Dee at Sodyllt, north Shropshire, in large numbers. This is a very small insect at no more than 2 mm.

References

Cook, A.A. 2015. A review of the Hemiptera of Great Britain: The Aquatic and Semi-aquatic Bugs. *Dipsocoromorpha, Gerromorpha, Leptopodomorpha & Nepomorpha*. Species Status No. 24. Natural England Commissioned Report NECR 188.

Huxley, T. 2003. *Provisional atlas of the British aquatic bugs (Hemiptera, Heteroptera)*. Huntington: Biological Records Centre.

NBN. https://data.nbn.org.uk/ (Accessed November 2016)

Cymatia bonsdorffii (Sahlberg, C., 1819) Hemiptera Heteroptera (Corixidae)

Frances J Riding

Since writing the previous article another apparently new species of aquatic bug has come to light in the family Corixidae, subfamily Cymatiainae. This is the larger of the two *Cymatia* in this country being 5.5 – 6.5 mm long. I found this particular insect in a pot of preserved specimens from the west end of Cole Mere that I netted at the beginning of June 2016.

Photo 1. *Cymatia bonsdorffii*

Photo 2. Anterior tarsus of *C. bonsdorffii* showing cylindrical shape (Photo FJ Riding)

C. bonsdorffii (Photo 1) is to be found throughout the whole country but is poorly recorded in the west and north Midlands. The nearest records are for Cwm in Wales, just off the Kerry Ridgeway, in

1993 and Aqualate Mere, Staffordshire, in 2014 (NBN, 2016).

The *Cymatia* are easily identified from all other Corixids by the anterior tarsus which is cylindrical (Photo 2). Also the pronotum is brown with no more than a vague trace of lines (Savage, 1989).

References.

NBN. https://data.nbn.org.uk/ (Accessed November 2016)

Savage, A.A., 1989. *Adults of the British Hemiptera Heteroptera: A key with ecological notes*. Scientific Publication No. 50. Freshwater Biological Association.

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My Year with Springtails

David Williams

As I write this, it is almost exactly twelve months since, on 25th November 2015 I attended a 'Collembola field day' at Colemere, organised by Pete Boardman. Several things had left me in two minds about attending. The weather forecast was terrible (and turned out to be depressingly accurate). I am not the sort of entomologist who enjoys hours (or even seconds) of microscope work, which would seem to be a given in the study of such tiny things. And finally, my camera's macro capabilities were not really up to the near-microscopic world of springtails (or so I thought). Nevertheless, I did go along to see what would be revealed. When, eventually, the heavy rain relented, I was able to risk getting my camera out of its bag. I found some springtails on wooden gates & fences & took a few shots. They were surprisingly good. Which is to say, they were not utterly terrible, which was in itself a surprise.

Without descending into an article about camera equipment, I suppose I need to at least briefly describe my camera & its various macro set-ups. I use what is now known as a 'compact system camera', which is basically a DSLR with various of its innards removed to make it more compact. I don't use a 'proper' macro lens, instead screwing various close-up lens attachments to the front of a fairly standard zoom lens. Rather like fitting the lens with very strong reading glasses. At the time of the Colemere day, the strongest close-up lens I

Entomology Day 2016

Standing room only! Shropshire Entomology Day 2016, held at Preston Montford.

was using was a Raynox DCR-250, which would give me better than the macro photographers' 'Holy Grail' of 1:1 macro – about 1.5:1 in fact at the 'long end' of my zoom lens. This turns out to be good enough to get OK pictures of larger springtails.

I came back from Colemere having had a great day (despite the cold & wet) and with some pleasing photos. I uploaded thes to Flickr.com (a photo-sharing website) and this is where the fun really started. A photo of what had been identified as *Pogonognathellus longicornis* (Muller, 1776) was found by the world Collembola expert Frans Janssens and identified instead as *P. flavescens* (Tullberg, 1871), a species which the UK Collembola recorder Peter Shaw regards as "scarce, maybe montane". I will leave aside the taxanomic debate that this has provoked. What it provoked in me was the realisation that I could photograph springtails, post them on social media and get them identified by the world expert on the subject! Furthermore, it has become apparent that

Pogonognathellus flavescens (on paint brush) (D. W. Williams)

Katiannidae gen. nov. sp. nov. male (D. W. Williams)

Sminthurides aquaticus, males (approx. 0.3mm long) being held aloft by juvenile females (D. W. Williams)

Orchesella villosa (4.2mm long) (D. W. Williams)

Neanura muscorum (2mm long) with juvenile ?*Ceratophysella* sp. (D. W. Williams)

Sminthurus viridis (D. W. Williams)

quite a wide range of taxa can be identified from photographs of appropriate quality, reducing the need for tedious (to me) microscopy & keying. Suddenly, springtails became compelling subjects for macro-photography. My garden Collembola list currently stands at 22 species, of which only three are identifications from specimens, the other 19 being identified from photographs.

However, before I could get to this stage I did really need more magnification. This came by replacing my Raynox DCR-250 with a Raynox MSN-202, which is about three times as powerful. Various fiddlings with flash set-up and camera settings were also necessitated by this, plus an awful lot of practice, as this level of extreme magnification comes with a corresponding tiny depth of field. Springtails turn out to be great subjects for winter photography, as a wider range of species is active in the cold months than in summer. This makes them a perfect complement to the usual range of entomological subjects. I set about investigating the springtail fauna of my garden. The most notable early find was a springtail which does not even have a name! Only recognised & described in recent years, it is currently known as 'Katiannidae gen. nov. sp. nov.'. Various Collembola-photographers have travelled to Sheffield Botanical Gardens in recent years to photograph this species; it now turns out to be quite common in the Telford area and is abundant in my garden, where the preferred habitat seems to be a handrail and a water-butt! They are attractive, sexually dimorphic, spotty creatures, the males developing bright red-orange backs.

In March, a group of us assembled at Preston Montford to try out our springtail-photography techniques. The Collembola star of the day was *Sminthurides aquaticus* (Bourlet, 1843). A fascinating aquatic species, males have 'grasping' antennae, with which they 'lock horns' with females & are carried around by them. They tend to grab sub-adult females & wait for them to moult to adulthood. This strategy ensures they get to the sexually mature female first.

Summer is a quieter time for Collembola, but there are a few species which appear in the warmer months & disappear in winter. These include *Sminthurus viridis* (Linnaeus, 1758), sometimes known as the 'lucerne flea'. This is a large (3mm or so) green or yellow species which is very common on legumes, especially white clover.

And so we arrive again at autumn, and the springtail season 'proper' gets under way again.

Anurida granaria with mite & ?*Hypogastrura* sp. (D. W. Williams)

A recent visit to a woodyard in Stirchley revealed a group of powder-blue *Neanura muscorum* (Templeton, 1835), in amongst adults & juveniles of a smaller, pink species, probably a species of *Ceratophysella* (per F. Janssens). Several of the *Neanura* had *Ceratophysella* juveniles climbing over them for reasons unknown. Close by was a species identified on Flickr by Frans Janssens as *Anurida granaria* (Nicolet, 1847) which was also carrying a passenger. However, this was a mite, and I suspect its intentions were less benign.

After last winter's huge strides made in the Shropshire Collembola Atlas project, I wonder what lies in store this year. My camera is ready...

A poplar moth night at Wappenshall Wharf

Stephen and Margaret Mitchell

The Shropshire Moth Group (SMoG) arrived promptly at 8 pm to find the entrance to the wharf locked, but this was soon resolved when a neighbour fortuitously arrived home with his takeaway and let us in. After much discussion about where to locate the five traps we set them up and then took time to discuss the intricacies of trapping with the members of the Shrewsbury and Newport Canal Trust who had joined us for the evening. They in turn took us on a tour of the site and we were surprised to see how densely overgrown the wharf had become during the summer.

Conditions were ideal, warm and cloudy with only a light breeze. As dusk descended bat detectors came out and the slap, slap, slap rhythm revealed Pipistrelles flying low overhead. Then the unmistakeable screech of an owl was heard, followed moments later by the cream shadow of a barn owl swooping silently over our heads. It is thought that it may have nested in one of the old buildings, which it did last year. What a treat! It boded well for the rest of the night, and so it proved.

The first moth to arrive was a female **Ghost moth** *Hepialus humuli humuli* (L. 1758) that nestled in the grass adjacent to a trap. The female is larger than the male and is a honey yellow, whilst the smaller male is white. They used to be quite common, but like many moths and butterflies are becoming less so. The Telford area seems to be quite a hot spot for them and this was a great start to the evening. The males usually gather in leks, hovering over grasses looking for females. We did not see this spectacle, nor did the female lay any eggs in the pot. When she does, they shoot out as if from a small cannon and are quite dry, rolling around like mini ball bearings.

Another amazing moth to arrive was the spectacular **Poplar Hawkmoth** *Laothoe populi* (L. 1758) that made an appearance next to the wharf. This is one of the largest British moths and, depending on the season, may have two generations, the second being in early August. It comes easily to light and will sometimes sit happily on your hand.

Caught in several traps was the beautiful **Blood-vein moth** *Timandra comae* (Schmidt, 1931), easily recognisable by the diagonal pink/red line running from forewing tip to the trailing edge. It was fresh in colour and must have just emerged as the pink fringing on the wings fades to a dull brown with age.

Poplar hawk moth

An interesting moth, which we found, was the **Olive moth** *Ipimorpha subtusa* Denis & Schiffermüller, 1775. This moth is described as local, which means it is unusual to find but not rare. Like the Poplar Hawkmoth it likes marshy, wetland areas. It overwinters as an egg and has only one generation, the adults being on the wing between July and September. The larva feeds in leaves spun together high up in the trees. Presumably this gives them some protection from predators like birds and bats. The female moth was taken home and laid eggs before her release the following day. Her eggs are particularly beautiful, being pink with white fringes.

Olive moth egg

It is the first time they have ever been photographed. The eggs will be nurtured and photographed at each stage of their development.

The Trust members were surprised to see how colourful and intricate some of the moths are, just as beautiful as many butterflies, moths such as the **Brimstone, Mother of Pearl, Phoenix, Small Rivulet, Small Magpie, Yellow-tail, Riband Wave** and many more.

Our evening concluded when John found a large toad, which sat quite calmly on his hand for us to view and, happily, did not seem interested in our collection of moths! With that we switched off the traps, recorded the last few moths and potted up those that we needed to take home to identify in daylight. Thus came to an end another successful SMoG moth night.

Thanks are extended to the Shrewsbury and Newport Canal Trust who allowed us to trap on their site and to whom we wish every success in their endeavours to restore the Wharf and associated canal.

Anyone interested in joining the group should contact County Recorder Tony Jacques at rec-vc40@vc40tj.plus.com to whom all butterfly and macro moth records for Shropshire should be sent. Micro moth records should be sent to Godfrey Blunt at blunt.sig195@btinternet.com

Stephen and Margaret Mitchell

Shropshire Moth Group

Photographs courtesy of David Williams and Tony Jacques

Chilenocaecilius ornatipennis (Blanchard, 1851) Psocoptera: Paracaeciliidae

Keith Fowler

On a pleasant winter's day at the start of February, at the invitation of Mags Cousins, a small group of us visited her land, a Local Wildlife Site, at Bagbatch in All Stretton. It consists of semi and unimproved grassland, hawthorn scrub and open woodland with some mature oak, ash and sycamore and dingle woodland. Given the time of year we had a very productive day.

Early in the visit I beat a medium sized yellow barkfly from a holly. Its appearance suggested that it was a member of the genus *Valenzuela.* As I could not identify it at the time I retained it for determination later. Later on I beat some ivy and found a second barkfly that looked very similar to the one taken from the holly, so I kept it.

On trying to identify these two barkfly I checked the National Barkfly Recording Scheme's online key (http://www.brc.ac.uk/schemes/barkfly/key/key.htm) as a good proportion of the species can be identified on their wing characteristics supported by other external features.

As I could not determine the species from the online key I took them through the more detailed key in New (2005). This also proved unsuccessful. The key placed them in family Caeciliusidae within the genus *Valenzuela*, however the size, wing pattern and head pattern of the specimens did not match any of the taxa within this genus or even the wider family.

As a last resort I looked at the Gallery of the National Barkfly Recording Scheme and almost immediately my identification problem was resolved with three pictures of *Chillenocaecilius ornatipennis*. Next I checked the species account - "First found in Ireland, 2015." – rather a terse statement of fact. So what is its distribution? "No distribution map is available as the species was not found on NBN Gateway." Finally I checked the home page of the website and finally found some information about the species.

The species was previously only known in Chile and Argentina but was found in abundance in Glengarriff Woods, County Cork in 2015 by Mark Telfer. It has since been found in 2016 in County Fermanagh. It is presumed that it had been imported on cultivated plants and has found the local climate amenable (National Barkfly Recording Scheme website).

I contacted the National Recorder, Dr Keith Alexander, who confirmed that my description of the species was enough to agree the identification. He also added that the species has been turning up very widely in Britain and appeared to be very mobile.

Chilenocaecilius ornatipennis (photo David Williams)

Chilenocaecilius ornatipennis detail (photo by David Williams)

As can be seen from David Williams' photographs it is an attractive and distinctive species. It is basically yellow highlighted by a rusty-red stripe along the side of its thorax that continues onto its head through the eye to the base of the antenna.

Please keep a look out for it and let me know if you find it.

References

New, T. R.,2005. *Psocids Pscocoptera (Booklice and barklice) (2nd Edition), Handbooks for the Identification of British Insects Vol.1I, Part 7.* Royal Entomological Society of London, London.

National Barkfly Recording Scheme website: http://www.brc.ac.uk/schemes/barkfly/homepage.htm

We're going on a Snow Flea hunt

Keith Fowler

At the Worcestershire Entomology Day in 2015 John Bingham gave a talk on the snow flea *Boreus hyemalis* (Linnaeus, 1767) (Mecoptera: Boreidae) and exhorted us all to go out and find them. True, they only appeared in the cold winter months when most of us prefer to be sat by the fireside dreaming of the warmer weather ahead, but for those of us who do venture out during this period, an excellent target species.

The way John presented it they should be easy to observe. Find a good patch of moss in dappled sunlight in woodland on a crisp day and watch the moss surface for a few minutes and, all being well, you will see them as they move about the surface of the moss.

Over the following few months we did try, but all attempts ended in failure.

Bob Kemp met John later this year and suggested that he take us, at a suitable time, to a location where John and Denise had found snow fleas in the past. So the day after this year's Worcestershire Entomology Day we met up with John and Denise in the Wyre Forest Hawkbatch car park and set forth on an educational expedition.

We weaved our way through the woodland until we came to a patch of woodland that sloped down to the bridle path that follows the course of Dowles Brook. Here there were large patches of moss in amongst the trees. This was a spot where they had been found previously. The sun was shining but it was pleasantly warm for a November day.

We looked and we searched on hands and knees but not a snow flea did we find. We did find the empty

Male land caddis *Enoicyla pusilla* (photo by Bob Kemp)

Female land caddis *Enoicyla pusilla* (photo by Bob Kemp)

case of a land caddis *Enoicyla pusilla* (Burmeister, 1839) (Trichoptera: Limnephilidae) and later an adult male and female. But the number of snow fleas? Zero.

The speculation on their absence included the moss and wood in general being too dry and possibly the wrong type of moss, snow fleas seeming to prefer the lusher *Polytrichum* mosses. We were not too disheartened as we were now in a better position to find them on another occasion. The snow flea hunt was abandoned and we moved on to another area of the Wyre to look at the cave spiders *Meta menardi* (Latreille, 1804) (Araneae: Tetragnathidae) John and Denise had found in a drain.

A couple of weeks later Jim Cresswell, Nigel Cane-Honeysett and myself decided to try again and returned to the Wyre Forest to look for elusive insects in the area that John had taken us to. The day was overcast, occasionally drizzly but not too warm.

Female cave spider *Meta menardi* (photo by Bob Kemp)

The first task was to find the spot. Fortunately Jim had kept track of our path on his GPS. Unfortunately the track was compressed onto a display screen the size of a postage stamp. Still it gave us the general direction.

After a few wrong turns and doubles back we somehow arrived at the correct location. We found some patches of polytrichum mosses which had been amply refreshed by recent heavy rain. We looked and we searched and we found ... nothing.

All was not lost as Nigel had insisted that we brought the vacuum sampler with us; he even volunteered to carry it. This was brought into action and its first sample produced, you guessed it, nothing. Were we going to be frustrated again?

No!

The pleasure of success - a snow flea with Keith and Nigel (photo by Jim Cresswell)

We tried again. This time when its contents were disgorged into a tray we found two insects that I thought were *Dicyphus* mirid bugs that turned out, on closer inspection, to be two female snow fleas.

What a delightful creature. Rather bizarre in its overall appearance but with a beautiful bronze sheen to its body.

The snow fleas were taken from a more or less south west facing bank covered in *Polytrichum* moss that bordered the path that we were on. Jim took the temperature of the moss. It was 11°C (52°F). We moved on to another area close by, off the path within the woodland, and tried some moss around a tree and found a male.

At long last we had found snow fleas. Not a new record but at least we now have some experience of finding them and, hence, a greater chance of finding them elsewhere.

My thanks to John and Denise Bingham for providing the location, help and encouragement; Jim Cresswell for the photographs of the snow flea; Bob Kemp for the photographs of the land caddis and cave spider.

For those of you who cannot see the snow flea on the picture above, here are a couple of close ups.
A female snow flea (photos by Jim Cresswell)

Pugh Supper 2016

The County Recorder Network

This information is accurate at the time of press. All these people carry out their roles as volunteers and we are indebted to their hard work.

Lepidoptera (butterflies and moths)

Butterflies – Tony Jacques Email: rec-vc40@vc40tj.plus.com

Macro-moths – Tony Jacques Email: rec-vc40@vc40tj.plus.com

Micro-moths – Godfrey Blunt Email: blunt.sig195@btinternet.com

Odonata (damselflies and dragonflies)

Dragonflies and damselflies (Odonata) Sue McLamb – Email: mclamb1@btinternet.com

Hemiptera (true bugs)

Terrestrial Bugs (now including shieldbugs), the Auchenorrhyncha and Psylloidea (Hemiptera) – Keith Fowler – Email: keith.c.fowler@blueyonder.co.uk

Aquatic Bugs (Hemiptera) – Frances Riding Email: franrid@hotmail.com

Coleoptera (beetles)

All families except Ladybirds and water beetles – Caroline Uff – Email: caroline.uff@nationaltrust.org.uk

Ladybirds (Coccinellidae) – Ian Thompson – Email: salopladybirds@f2s.com

Water beetles – Frances Riding – Email: franrid@hotmail.com

Diptera (true flies)

Brachyceran flies (Empidid flies, hoverflies, robber flies, horse flies, soldier flies, tachinid flies, conopid flies, picture-winged flies etc) – Nigel Jones Email: nipajones@tiscali.co.uk

Nematoceran flies (craneflies, winter gnats, bibionids, mosquitoes, etc) – Pete Boardman – Email: pete.ento22@gmail.com

Leaf-mining flies (Agromyzidae) – Godfrey Blunt Email: blunt.sig195@btinternet.com

Hymenoptera (bees, wasps, ants etc)

Aculeates (bees, wasps and ants) and sawflies (symphyta) – Ian Cheeseborough – Email: crossocerus1@gmail.com

Aquatic insects

Mayflies (Ephemeroptera) - Ian Thompson – Email: salopladybirds@f2s.com

Trichocera (Caddisflies) and Plecoptera (Stoneflies) – Frances Riding – Email: franrid@hotmail.com

Orthopteroids

Orthopteroids (Grasshoppers, Crickets, Ground hoppers, Earwigs etc) – David Williams Email: dw1971@btinternet.com

Arachnids

Spiders Harvestman Pseudoscorpions – The Shropshire Spider Group – Email: nigel@canehoneysett.plus.com

Hexapods

Collembola (Springtails) – Francisca Sconce – Email: fsconce@harper-adams.ac.uk and Pete Boardman – Email: pete.ento22@gmail.com.com

Others

Plant Galls (of whichever taxonomic order including mites) – Godfrey Blunt Email: blunt.sig195@btinternet.com